

4090 – Data Integration Standard:

There are many reasons to attempt to integrate data. Predictive Analysis and Business Intelligence across a larger component of the Enterprise are two. Data Integration is simplified through the use of common data model standards. **Common data** is data capable of being used by more than one system or agency, where the value of the data to State Government or the citizens of the Commonwealth would be enhanced through standardization. **Data Standardization** refers to the specification of a single accepted enterprise norm for a particular common data element.

Benefits of Data Integration include, but are not limited to:

- Data Sharing: Facilitates data sharing within and between agencies at all levels of government where allowed by law.
- Data Interoperability: Facilitates the integration of silo-based systems and the proliferation of enterprise-based systems.
- Data Access: Facilitates ease of access to data across the Commonwealth. Enterprise Information Intelligence efforts will be more costly and slower without data integration capabilities.
- Data Transparency: Both strategic and tactical data users need access to reliable information, regardless of the technical platform or operating systems associated with the data collection systems.
- Development Time: Facilitates potential reduction in application development time and cross-platform utilization of staff if 'generic' queries can be utilized as opposed to database specific.
- Standardization and Reuse: Integration allows for the reuse of commonly used transformation logic across projects.

Rationale:

This standard supports the Kentucky Enterprise Data Architecture (KEDA) for the integration of data throughout Kentucky State Government. The goal is to facilitate access to data within and across the boundaries of state agencies. Standardization will facilitate the ability to integrate data from many different systems and increase the ability and timeliness to achieve true business analytics for Executive Branch decision making.

Approved Standard(s):

Under state statute ([KRS 42.730](#)) the Commonwealth Chief Information Officer (CIO) shall carry out functions necessary for the efficient, effective and economical administration of information technology and resources within the executive branch.

The Kentucky Enterprise at architecture multi-agency Task Force was established by the CIO to apply best practices for people, process and policy to improve data quality, integration and predictive decision making across the executive branch. Data integration is a key component to increased efficiencies and effectiveness. Data redundancies exist due to the historic lack of comprehensive enterprise data vision, to include standardization of common data elements. Data from multiple business areas cannot be easily combined or have analysis performed due to a lack of data standards and data element characteristics, including definition.

Justification:

The quality of decisions is directly affected by the quality and quantity of the data supporting those decisions. To improve the quality of those decisions, access to the broadest scope of related data in state government is necessary. Data Integration tools allow the silos to be broken down between agencies, applications, databases and platforms. The IBM Websphere Information Integration toolset has been identified as a market leader by Gartner. The metadata generated by this toolset is also compatible with the data quality toolset standard for the Commonwealth.

Technical and Implementation Considerations:

Establishment of this standard does not require agencies to modify legacy systems to conform.. Existing IT application databases will have their common data elements mapped to the Enterprise Common Data Framework and electronically submitted to COT for inclusion in the Enterprise Metadata Repository System Inventory. This information will provide the basic building blocks to allow cross-system.-agency data integration by key data elements.

For the purchase of major IT systems that require a Request for Proposal (RFP) or a Strategic Alliance Service (SAS), verbiage must be included to require one of the deliverables to be the mapping of the proposed system's common data elements to the Enterprise Common Data Framework. This deliverable must be in electronic format and submitted to COT for inclusion in the Enterprise Metadata Repository System Inventory.